

Amendments to claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Please amend claims 15 and 21 as shown.

Claims 1-14 (canceled).

15. (currently amended): A porous insulating film consisting essentially of a highly heat resistant polyimide resin film having a fine porous structure wherein:

a) fine continuous channels reaching to both surfaces of the insulating film in a nonlinear fashion have a mean pore size of 0.01 – 2 μm in the center and both surfaces of the film and a porosity of 15 – 80%;

b) the polyimide resin film is prepared from a polyimide precursor solution and consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic acid component and a diamine component; and

c) the insulating film has

a thickness of 5 – 150 μm ,

a resistance to passage of air of from 30 sec/100 cc to 2000 sec/100 cc and

a heat shrinkage of not greater than about $\pm 1\%$ after being heat-treated at 105°C

for 8 hours and

does not contain a dense layer on any of its side surfaces.

16. (previously presented): The porous insulating film according to claim 15, wherein the mean pore size is 0.05 – 1 μm .

17. (previously presented): The porous insulating film according to claim 15, wherein the porosity is 30 – 80%.

18. (previously presented): The porous insulating film according to claim 15, wherein the thickness is 5-100 μm .

19. (previously presented): The porous insulating film according to claim 15, which is fabricated by a film casting method.

20. (previously presented): The porous insulating film according to claim 15, which has a dielectric constant of no greater than 2.5.

21. (currently amended): A porous insulating film consisting essentially of a highly heat resistant polyimide resin film having a fine porous structure wherein:

a) fine continuous channels reaching to both surfaces of the insulating film in a nonlinear fashion have a mean pore size of $0.01 - 2 \mu\text{m}$ in the center and both surfaces of the film; and

b) the polyimide resin film is prepared from a polyimide precursor solution and consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic acid component and a diamine component and

c) the insulating film has

(i) a thickness of $5 - 100 \mu\text{m}$,

(ii) a resistance to passage of air of from 30 sec/100 cc to 2000 sec/100 cc,

(iii) a heat resistance temperature of at least 200°C and

(iv) a heat shrinkage of not greater than $\pm 1\%$ after being heat-treated at 105°C for 8 hours and

does not contain a dense layer on any of its side surfaces.

22. (previously presented): A battery separator comprising a porous insulating film according to claim 21.

23. (previously presented): The porous insulating film according to claim 15 or 21, wherein the tetracarboxylic acid component is selected from a biphenyltetracarboxylic dianhydride, pyromellitic dianhydride and a benzophenonetetracarboxylic dianhydride.

24. (previously presented): The porous insulating film according to claim 15 or 21, wherein the diamine component is selected from a phenylenediamine or a diaminodiphenylether.

25. (previously presented): The porous insulating film according to claim 15, wherein the pores in the porous structure are arranged in the film substantially parallel to the film surfaces.

26. (previously presented): The porous insulating film according to claim 23, wherein the biphenyltetracarboxylic dianhydride is 3,3',4,4'-biphenyltetracarboxylic dianhydride.

27. (previously presented): The porous insulating film according to claim 21, wherein the pores in the porous structure are arranged in the film substantially parallel to the film surfaces.